

CLAIMS

5 1. A process for producing an aromatic compound by Friedel-Crafts reaction, which comprises reacting an aromatic compound with an ester compound in the presence of a heteropolyacid-containing solid acid catalyst.

10 2. The process according to claim 1, wherein the heteropolyacid-containing solid acid catalyst is a solid acid catalyst comprising a carrier and a heteropolyacid carried on the carrier.

15 3. The process according to claim 1 or 2, wherein a central atom of the heteropolyacid is selected from the group consisting of P, Si, B, Ge and As and a coordinating atom comprises at least one of Mo and W.

4. The process according to claim 1 or 2, wherein a central atom of the heteropolyacid is selected from the group consisting of Si and Ge and a coordinating atom comprises at least one of Mo and W.

20 5. The process product according to claim 1, wherein an amount of the heteropolyacid carried in the heteropolyacid-containing solid acid catalyst is 50% by weight or less.

25 6. The process according to claim 1, wherein an amount of the heteropolyacid carried in the heteropolyacid-containing solid acid catalyst is 30% by weight or less.

7. The process according to claim 2, wherein a relative surface area of the carrier supporting the heteropolyacid is 20 m<sup>2</sup>/g or more.

30 8. The process according to claim 2, wherein the carrier carrying the heteropolyacid has a purity of 98% or higher.

9. The process according to claim 1, wherein the ester compound comprises lactones.

35 10. The process according to claim 1, wherein the aromatic compound by Friedel-Crafts reaction comprises aromatic ketones, aromatic carboxylic acids, aromatic alcohols, or alkylated or alkenylated aromatics.

11. The process according to claim 10, wherein the aromatic compound by Friedel-Crafts reaction is aromatic ketones or aromatic carboxylic acids.
- 5 12. The process according to claim 11, wherein the aromatic compound by Friedel-Crafts is aromatic ketones.
13. The process according to claim 1, wherein the Friedel-Crafts reaction product is cyclized ketones.
- 10 14. The process according to claim 1, comprising the step of reusing the heteropolyacid-containing solid acid catalyst after separating and recovering it.
15. The process according to claim 14, wherein the catalyst is regenerated in the step of reusing the heteropolyacid-containing solid acid catalyst after separating and recovering it.
16. An aromatic compound by Friedel-Crafts reaction, produced by the production process of any one of claim 1 to 15.